

IN THE CLAIMS

1. (currently amended) A mobile node adapted router, located on a communication path between a correspondent node communicating with a mobile node and a home agent of the mobile node, and forming a network supporting packet communication for at least a mobile node, comprising:

a memory means for storing a current address of said mobile node which should be stored by a correspondent node of the packet communication in place of the correspondent node;

a transfer means for referring to said memory means, converting [[said]] a home address destination to [[said]] a current address destination, and transmitting a packet, when receiving a packet transmitted from said correspondent node [[to]] destined for the home address destination, of the mobile node to the current address destination before the received packet reaches the home agent; and

a registering means for newly registering correspondence between the home address and the current address in the memory means triggered by the reception of update notifying information transmitted for notifying the correspondent node in communication of updating of an address along with a change of the current address due to movement of the mobile node.

2. (canceled)

3. (original) A mobile node adapted router as set forth in claim 1, wherein said network includes a home agent router accommodating the mobile node at the home address and the mobile node adapted router further comprises a registering means for newly registering the correspondence between the home address and the current address in the memory means

84122839_1

Serial No. 09/918,271

Page 3 of 8

triggered by the transfer of an updated address from the home agent router when receiving update notifying information transmitted for notifying the home agent router of updating of an address along with a change of the current address due to movement of the mobile node.

4. (currently amended) A home agent router, forming a network supporting packet communication for at least a mobile node, comprising:

a receiving means for receiving update notifying information transmitted for notifying the home agent router of updating of the address along with a change of the current address due to movement of the mobile node and

an address update notifying means for transmitting the current address after updating to a mobile node adapted router as defined in claim 1, which router forms the network when receiving the update notifying information.

5. (currently amended) A mobile node adapted router as set forth in claim 1, wherein when the correspondent node is a node supporting the Mobile-IPv6 protocol, the current address is a care-of address and the update notifying information is a binding update signal.

6. (currently amended) A mobile node adapted router as set forth in claim 1, wherein said transfer means holds authentication information set with the mobile node and returns a binding acknowledgment signal for reception of the binding update signal to the mobile node originating the binding update signal.

84122839_1

7. (currently amended) A mobile node adapted router as set forth in claim 1, wherein said transfer means forms an IPv6 routing header describing said home address in said packet when transferring the packet from said correspondent node to said mobile node.

8. (currently amended) A mobile node adapted router as set forth in claim 1, wherein said transfer means IP-in-IP encapsulates and transfers said packet by an IPv6 header including said current address when transferring the packet from said correspondent node to said mobile node.

9. (original) A home agent router as set forth in claim 4, wherein said other router is a mobile node adapted router able to communicate with a mobile node supporting the Mobile-IPv6 protocol and wherein said address update notifying means notifies said mobile node adapted router of a care-of address indicating said current address as a destination option as one of the IPv6 extension headers.

10. (currently amended) A home agent router as set forth in claim 4, wherein a packet notified to said mobile node adapted router includes an authentication header and wherein the authentication data inside said authentication header is comprised of results of calculation using the authentication information set between the home agent router and the mobile node adapted router and the content of the packet.